Image credit: Phil Broom

CORK HOUSE

Designed as a response to modern architecture's impact on biodiversity and climate change, Cork House has won multiple awards for the way it fuses ancient construction methods with cutting edge design. The result, a sustainable living solution whose whole-life carbon is 85% less than a traditional new build house.

The 'whole-life approach' to sustainability was encompassed by the design team - Matthew Barnett Howland, Dido Milne and Oliver Wilton who wanted to create a practical kit-like structure that blends seamlessly into its surroundings, whilst also being easily dismantled, reused or recycled.

Built using unconventional materials by Matthew Barnett Howland and assisted by M&P London Contractors Ltd, Cork House proved it is possible to build a dry jointed system held up purely through its own weight. The Conservation Plateau Rooflights were central to this design, acting as a paperweight, holding the cork blocks together whilst also allowing natural light into the building.

In typical construction, the Conservation Plateau baseplate slots over an insulated timber kerb on the roof, however in this self-supporting structure, the baseplate was required to fit over the top cork and Accoya block. Placing the rooflight over this top layer created a weathertight seal for the roof whilst also acting as a weight for the cork blocks below.

The Rooflight Co Design Engineers tailored the standard Conservation Plateau design to the dimensions of the top cork and Accoya timber block, ensuring the viewable opening of the rooflight matched the opening in the roof. With limited vertical windows in the structure, the rooflights became the main source of light. Looking up to the rooflights from within Cork House, a shaft of warm light is cast down through the laminated double glazed unit; a standard specification on any rooflight in The Rooflight Co's Flat Roof Collection for safety.

The roof was built into a square pyramid-like structure tapering at the top where the rooflight sits creating a stacked ventilation system. The motorised opening option allowed additional ventilation to help regulate the thermal and acoustic properties provided by the buildings' chosen materials, as well as assisting in the regulation of heat within the building.

The awards won by this project team is a testament to the level of attention to detail that went into every aspect of the design and construction of the structure. A striking result.

Contractor:
Matthew Barnett Howland (assisted by M&P London Contractors Ltd)

Architect:
Matthew Barnett Howland with Dido Milne and Oliver Wilton

Contact us for more information:
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Image credit: Ricky Jones

Image credit: Magnus Dennis

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